

# Acco Babcock Inc. Material Handling Group

Issued 7-1-87 Supersedes 10-1-85 33-101

#### **WRIGHT®**

Work-rated
ELECTRIC WINCHES
CAPACITIES ½ TON to 5 TON

Wright family of "Work-rated" winches is a complete line of electric wire rope winches. It is an advanced design incorporating the most recent materials and concept. Current duty cycle and safety requirements of users are built into this line, not added on.

#### **CONSTRUCTION FEATURES:**

CONTROLS: Controls are magnetic reversing type, mechanically and electrically interlocked with 115 volt control circuit. All wiring conforms to applicable NEC and CSA requirements. Included are time delay fuses for branch circuit overcurrent protection and motor running overcurrent protection. NEMA Type 3R enclosures are standard. Cover is lightweight, tough ABS material, deep-drawn for maximum control accessibility. Controls are shipped loose for customer mounting.

**MOTOR:** Standard NEMA flange, Class F insulation, 30-minute duty motor is provided for standard commercial power supplies. The motor has a standard NEMA shaft extension.

**GEAR TRAIN:** Quiet, compact helical gearing and external spur drum gear are enclosed in the same oil-tight housing. All gearing is machine cut, heat-treated alloy steel with shock-resistant ductile cores. Gearing is designed to AGMA standards for maximum life, and operates in an oil bath. Rugged aluminum alloy housing provides rapid heat dissipation.

**BEARINGS:** Precision heavy-duty ball bearings support all shafts. All bearings are either splash lubricated, or lifetime pre-lubricated and sealed.

**DRUM:** The large diameter steel drum has deep machined grooves and large flanges. At least two full turns of rope remain on the drum at rated drum winding capacity. Load capacity of each winch is rated at *total* line pull of the lead wire rope off the winch's drum. A single line winch has one lead of wire rope off the drum rated at full capacity. A double line winch has two leads of wire rope off hoist drum with a capacity of one half hoist rated capacity.

**MECHANICAL LOAD BRAKE:** Automatic Weston-type multiple disc brake can hold a full capacity load independent of motor brake. This brake assures that load does not accelerate while being lowered. No wear compensation adjustment is required.



MOTOR BRAKE: Wright rectified d-c magnet-actuated disc brake has been proved in millions of hours of in-service operation. It delivers rapid stops with minimum or zero hook drift. Series 3200000 thru 3500000 hoist have aluminum alloy brake cover with fins; and brake is separated from gear housing for rapid cooling. This multiple coil brake is rated a minimum of 150% of full load motor torque.

Series 3200000 thru 3500000 hoist also have an exclusive brake-sensing switch that prevents the motor from operating against the brake should brake adjustment be necessary.

**OVERLOAD CUTOFF:** Exclusive patented *Wright* unit is <u>not</u> available on winches.



#### **HOW TO SPECIFY A Work-rated WINCH**

1. DETERMINE THE CAPACITY, NUMBER OF LINES, LIFTING SPEED, AND WIRE ROPE LEAD OFF POSITION FOR YOUR APPLICA-TION. Work-rated winches may be reeved in various ways to gain desired mechanical advantages. The chart on the facing page illustrates characteristics of each type of reeving.

Reeving may change capacity, lifting distances, lifting speeds, and cable size.

Reeving terminology is either "single" or "double" which refers to the number of wire ropes coming from the drum.

Another word is "part" which refers to the mechanical advantage gained by multiple reeving. For example, with one part single reeving (1PS), the load is supported by one part of a single rope. By reeving single rope into two parts (2 part single) the load is distributed over the two parts and the mechanical advantage doubles the capacity of one part reeving and reduces by one half the lifting or lowering speed of the hook.

- 2. SPECIFY WINCH SERVICE CLASSIFICATION. Wright electric winches are Work-rated according to their design capabilities to provide the user with maximum performance for minimum maintenance and down time. See Master Catalog Section 32-A through H for performance specification.
- 3. SPECIFY PROPER PRODUCT NUMBER in regards to winch capacity, drum winding capacity, lifting speed and hoist control found in

Winches are grouped by load capacity. All winches are one part single reeved (1PS) in either single or double line models. When dual information is shown, the bold information is for single line winches and smaller information is for double line models.

- 4. SPECIFY EITHER SINGLE LINE OR DOUBLE LINE MODEL.
- 5. SPECIFY DRUM REEVING ARRANGEMENTS.

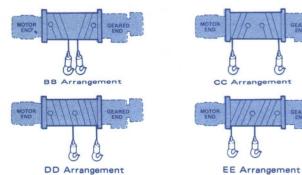
SINGLE LINE REEVING ARRANGEMENTS



Standard Arrangement

AA Arrangement

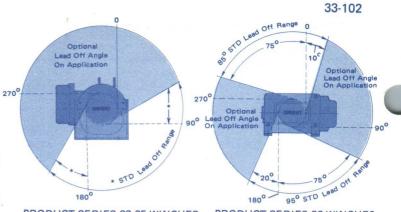
DOUBLE LINE REEVING ARRANGEMENTS



Arrangements AA, CC, DD & EE are non-standard. Prices are on application.

6. DETERMINE IF STANDARD LINE LEADOFF ANGLE IS APPRO-PRIATE. Work-rated winches are designed with a standard range or ranges of leadoff angles. See the above illustration for location of the standard range.

If any of desired leadoff angle falls into optional shaded area, the factory must be consulted for fabrication and additional pricing factors. Specify the desired angle range viewed from the gearing/motor brake end of winch. State angle in EXACT degree clockwise from zero vertical leadoff position as shown. If a range of degrees is required, state both limits in degrees.



PRODUCT SERIES 36 WINCHES PRODUCT SERIES 32-35 WINCHES

- \*Angles vary with PRODUCT SERIES. See specific pages for standard angles.
- 7. SPECIFY THE WIRE ROPE. Work-rated winches are not furnished with wire rope but are available with wire rope as optional equipment. Wire rope on all winches is 6 x 37 preformed. Certain applications may require non rotating cable, 18 x 7 construction. Prices for non rotating cable are available on application. Specify the wire rope by total length. diameter, and desired fittings.

LENGTH. Total length of wire rope is the sum of the following:

(b) Length for two remaining wraps Rated drum winding capacity Additional length for reeving Total length in feet

(a) Hoist Product Series	(b) Length for 2 Remaining Wraps
32	4'-6"
33	5′-6′′
34	6'-7''
35	7'-3"
36	8'-5"

(a) the first two digits of the product number (3330710) is the product series (33)

DIAMETER. Wire rope diameter is given for both single line and double line in top corner of each page. See Section 135 for pricing.

8. SPECIFY CABLE FITTINGS. The drum end (live end) cable fitting is attached to wire rope when supplied from the factory. The cable fitting is designed for easy installation and is swaged on to provide maximum security. See Master Catalog Section for pricing.

The following "DEAD END" cable fittings are available on application: Eye Bolt Swivel Hook

The "DEAD END" of wire rope may be specified "OPEN" (no fittings) or with any of the above fittings.

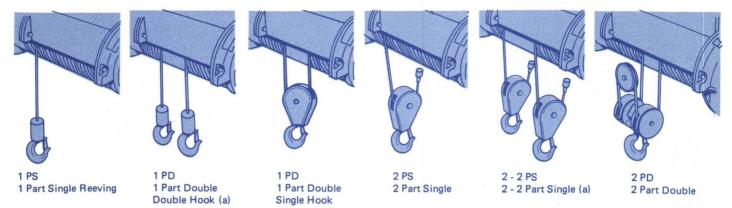
- 9. SPECIFY LOAD BLOCK AND IDLER SHEAVES. Information and data for these items are found in Master Catalog Section 35 "Hoist Accessories and Modifications" in "G Reeving" subdivision.
- 10. SPECIFY MOTOR VOLTAGE. Wright standard motors are available in 200/230/460/575-3-60 power with class F insulation, and are totally enclosed non-ventilated.
- 11. CONTROL. Control is furnished as standard equipment. Additional motor and control accessories and modifications are found in Section 35 in "C Motor" and "D Controllers" subdivisions.

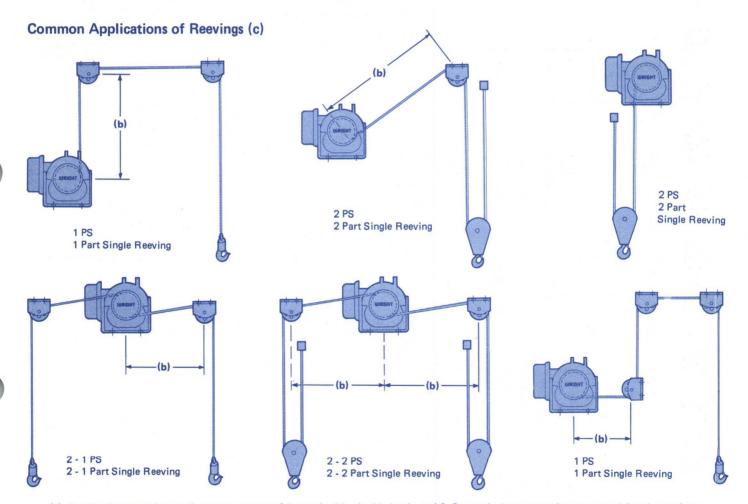
Control is shipped loose for customer mounting. If control mounting by ACCO is desired, contact factory for pricing.

Control position shown on the following pages is standard when control is mounted by ACCO. Please note that control mounted to hoist may extend above high point of hoist (or below low point of Product Series 35 wall mounted hoist). Contact factory for control dimensions.

- 12. SPECIFY PUSH BUTTON STATION. Push button station, drop of cord and strain chain are available as optional equipment. Specify drop of push button, calculated from center line of a winch to center line of the push button. See Section 35, "F Push Button" subdivision for further specifications.
- 13. SPECIFY LIMIT SWITCHES. Work-rated winches are not furnished with a standard limit switch or an overload cutoff device. Geared limit switch (installed) and power circuit limit switch (shipped loose) are available as optional equipment. A separate gravity limit switch to be actuated by the bottom block or load hook assembly is recommended. Slack line limit switch is available on application. See Section 35, "E" Limit Switches, subdivision for further specifications.

#### **Common Types of Reevings**





- (a) Application involving reeving arrangements of 1 part double, double hook, and 2-2 part single may require some provisions be made to adjust for unequal cable strength.
- (b) The location of the first reeving sheave in relation to winch drum centerline is critical and must be located so that a 3.5 degree fleet angle is not exceeded. After selecting proper winch for your application contact factory for information on locating the first reeving sheave.
- (c) Winches used in pulling type applications should be reviewed with the factory to determine if mechanical load brake should be eliminated from winch.

Note: Applications involving the support of suspended loads for prolonged periods of time should be provided with a separate means to support the load. Load should not remain suspended from the winch mechanism.

A separate gravity limit switch to be actuated by the bottom block or load hook assembly is recommended.

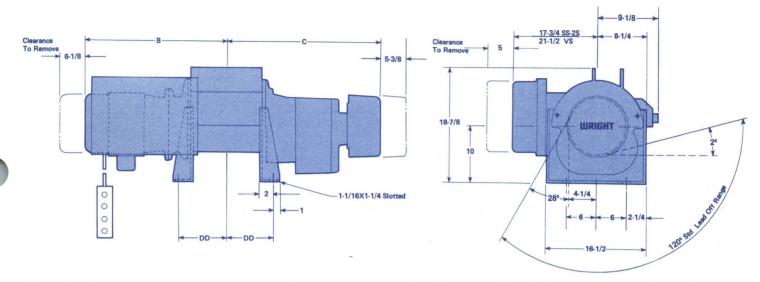
#### PRODUCT NUMBERS AND CLEARANCES

Drum (a)		Wire Rope Speed	60 Single	60-20 Two	60 Variable	90 Single	90-30 Two	90 Variable	120 Single	120-40 Two	120 Variable		
Winding		Control	Speed	Speed	Speed	Speed	Speed	Speed	Speed	Speed	Speed		
Capacity	Mtg.		2	2-2/3	2	3	3-1	3	4	4-1-1/3	4	DD	EE
H3	Base Wall							3241140 3242640 28-1/2 27-5/8			3241270 3242770 25-3/8 27-5/8	7-5/8	7-3/4
54 <b>H4</b>	Base Wall	B C		3240960 3242460 25-3/8 27-5/8								7-5/8	7-3/4
76 30 <b>H3</b>	Base Wall							3241160 3242660 30-1/2 29-5/8			3241300 3242800 27-3/8 29-5/8	9-5/8	9-3/4
76 30 <b>H4</b>	Base Wall	B C		3240990 3242490 27-3/8 29-5/8								9-5/8	9-3/4
104 48 <b>H3</b>	Base Wall							3241180 3242680 33 32-1/8			3241330 3242830 29-7/8 32-1/8	12-1/8	12-1/4
104 48 <b>H4</b>	Base Wall			3241020 3242520 29-7/8 32-1/8	and the second second							12-1/8	12-1/4
132 64 <b>H3</b>	Base Wall	× 1						3241200 3242700 35-1/2 34-5/8	The same of the sa		3241360 3242860 32-3/8 34-5/8	14-5/8	14-3/4
132 64 <b>H4</b>	Base Wall			3241050 3242550 32-3/8 34-5/8								14-5/8	14-3/4
160 81 <b>H3</b>	Base Wall							3241220 3242720 38 37-1/8			3241390 3242890 34-7/8 37-1/8	17-1/8	17-1/4
160 81 <b>H4</b>	Base Wall		and the state of the state of	3241080 3242580 34-7/8 37-1/8	3241090 3242590 34-7/8 37-1/8		-					17-1/8	17-1/4
221 118 <b>H3</b>	Base Wall					And the second second second second		3241240 3242740 43-1/2 42-5/8			3241420 3242920 40-3/8 42-5/8	22-5/8	22-3/4
221 118 <b>H4</b>	Base Wall				3241120 3242620 40-3/8 42-5/8	, ,				10	* 4 %	22-5/8	22-3/4

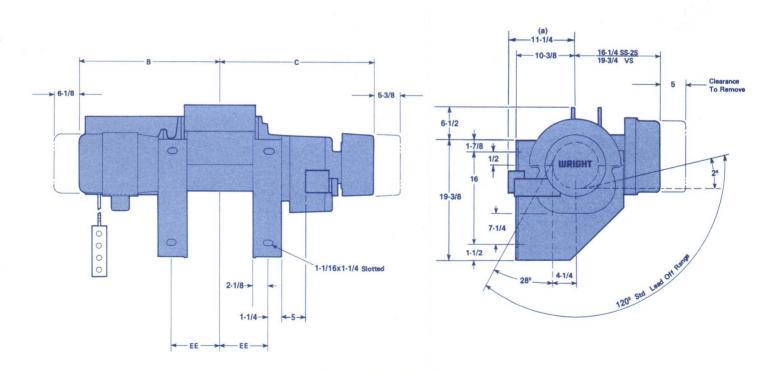
All dimensions shown in inches.

Controls are shipped loose, mounting and final wiring by others at destination.

<sup>(</sup>a) Maximum drum winding capacity is given with two remaining wraps of rope on drum. Drum winding capacities shown in smaller type are for double line winch.



**BASE MOUNTING** 



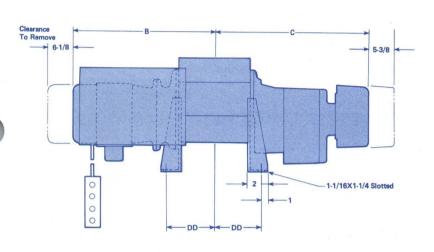
**WALL MOUNTING** 

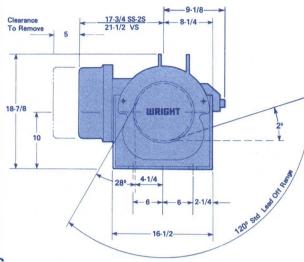
		Wire Rope	PR	ODUCT	NUMBERS	S AND CL	EARANG	CES		
		Speed	60	60-20	60	80	80-27	80		
Drum (a) Winding		Winch Control	Single Speed	Two Speed	Variable Speed	Single Speed	Two Speed	Variable Speed		
Capacity	Mtg.	HP	3	3-1	3	4	4-1-1/3	4	DD	EE
54 <b>H3</b>	Base Wall	ВС	3241430 3242930 25-3/8 27-5/8		3241450 3242950 25-3/8 27-5/8	3241610 3243110 25-3/8 27-5/8	3248880 3249000 27-3/8 27-5/8	3241620 3243120 25-3/8 27-5/8	7-5/8	7-3/4
76 32 <b>H3</b>	Base Wall	B C	3241460 3242960 27-3/8 29-5/8	3241470 3242970 27-3/8 29-5/8	3241480 3242980 27-3/8 29-5/8	3241630 3243130 27-3/8 29-5/8	3248890 3249010 29-3/8 29-5/8	3241640 3243140 27-3/8 29-5/8	9-5/8	9-3/4
104 48 <b>H3</b>	Base Wall	ВС	3241490 3242990 29-7/8 32-1/8	3241500 3243000 29-7/8 32-1/8	3241510 3243010 29-7/8 32-1/8	3241650 3243150 29-7/8 32-1/8	3248900 3249020 31-7/8 32-1/8	3241660 3243160 29-7/8 32-1/8	12-1/8	12-1/4
132 64 <b>H3</b>	Base Wall	B C	3241520 3243020 32-3/8 34-5/8	3241530 3243030 32-3/8 34-5/8	3241540 3243040 32-3/8 34-5/8	3241670 3243170 32-3/8 34-5/8	3248910 3249030 34-3/8 34-5/8	3241680 3243180 32-3/8 34-5/8	14-5/8	14-3/4
160 81 <b>H3</b>	B ase Wall	B C	3241550 3243050 34-7/8 37-1/8	3241560 3243060 34-7/8 37-1/8	3241570 3243070 34-7/8 37-1/8	3241690 3243190 34-7/8 37-1/8	3248920 3249040 36-7/8 37-1/8	3241700 3243200 34-7/8 37-1/8	17-1/8	17-1/4
221 118 <b>H3</b>	Base Wall	ВС	3241580 3243080 40-3/8 42-5/8	3241590 3243090 40-3/8 42-5/8	3241600 3243100 40-3/8 42-5/8	3241710 3243210 40-3/8 42-5/8	3248930 3249050 42-3/8 42-5/8	3241720 3243220 40-3/8 42-5/8	22-5/8	22-3/4

All dimensions in inches.

Controls are shipped loose, mounting and final wiring by others at destination.

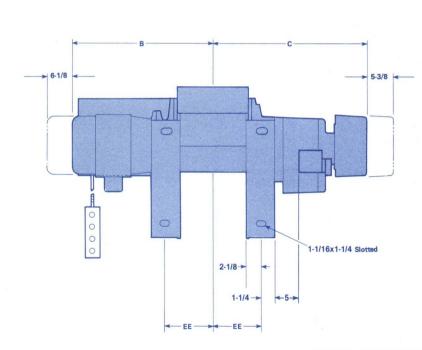
(a) Maximum drum winding capacity is given with two remaining wraps of rope on drum. Drum winding capacities shown in smaller type are for double line winch.

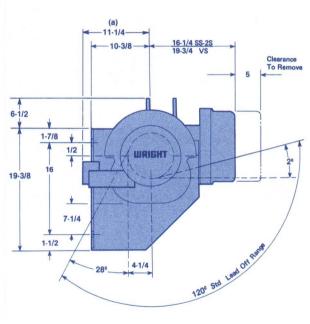




**WINCHES** 

**BASE MOUNTING** 





**WALL MOUNTING** 

		Wire	PR	ODUCT	NUMBER	S AND CL	EARAN	CES		
		Speed	44	44-15	44	60	60-20	60		
Drum (a) Winding		Winch Control	Single Speed	Two Speed	Variable Speed	Single Speed	Two Speed	Variable Speed		
Capacity	Mtg.	HP	3	3-1	3	4	4-1-1/3	4	DD	EE
H3	Base Wall	B C	3241910 3243410 25-3/8 27-5/8	3241920 3243420 25-3/8 27-5/8	3241930 3243430 25-3/8 27-5/8	3242090 3243590 25-3/8 27-5/8		3242110 3243610 25-3/8 27-5/8	7-5/8	7-3/4
60 32 <b>H3</b>	Base Wall	B C	3241940	3241950 3243450 27-3/8 29-5/8	3241960	3242120 3243620 27-3/8 29-5/8	3242130	3242140	9-5/8	9-3/4
82 48 <b>H3</b>	Base Wall	B C		3241980 3243480 29-7/8 32-1/8	3241990 3243490 29-7/8 32-1/8	3242150 3243650 29-7/8 32-1/8	3242160 3243660 31-7/8 32-1/8		12-1/8	12-1/4
105 64 <b>H3</b>	Base Wall	B C	3242000 3243500 32-3/8 34-5/8	3242010 3243510 32-3/8 34-5/8	3242020 3243520 32-3/8 34-5/8	3242180 3243680 32-3/8 34-5/8	3242190 3243690 34-3/8 34-5/8	3242200 3243700 32-3/8 34-5/8	14-5/8	14-3/4
127 81 <b>H3</b>	Base Wall	B C	3242030 3243530 34-7/8 37-1/8	3242040 3243540 34-7/8 37-1/8	3242050 3243550 34-7/8 37-1/8	3242210 3243710 34-7/8 37-1/8	3242220 3243720 36-7/8 37-1/8	3242230 3243730 34-7/8 37-1/8	17-1/8	17-1/4
175 118 <b>H3</b>	Base Wall	B C	3242060 3243560 40-3/8 42-5/8	3242070 3243570 40-3/8 42-5/8	3242080 3243580 40-3/8 42-5/8	3242240 3243740 40-3/8 42-5/8	3242250 3243750 42-3/8 42-5/8	3242260 3243760 40-3/8 42-5/8	22-5/8	22-3/4

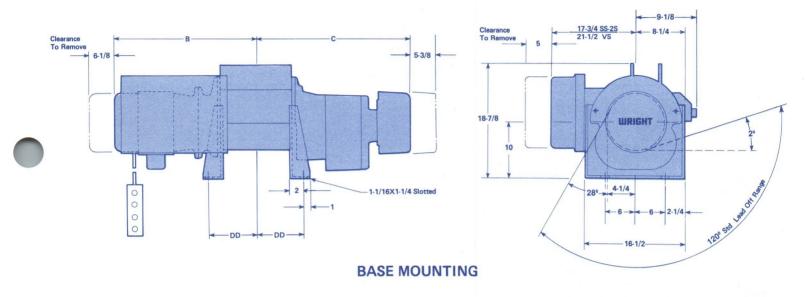
All dimensions in inches.

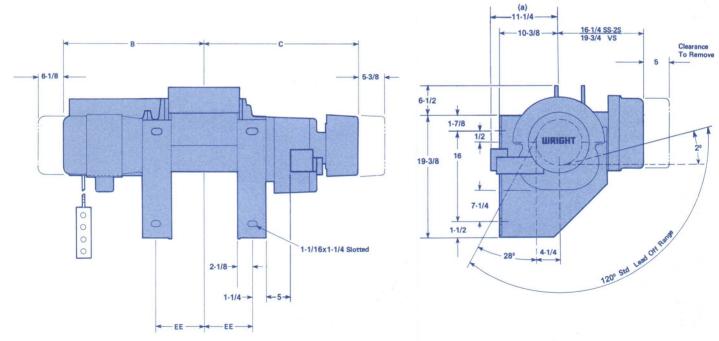
Controls are shipped loose, mounting and final wiring by others at destination.

(a) Maximum drum winding capacity is given with two remaining wraps of rope on drum. Drum winding capacities shown in smaller type are for double line winch.

33-109 Issued 7-1-87







**WALL MOUNTING** 

#### PRODUCT NUMBERS AND CLEARANCES

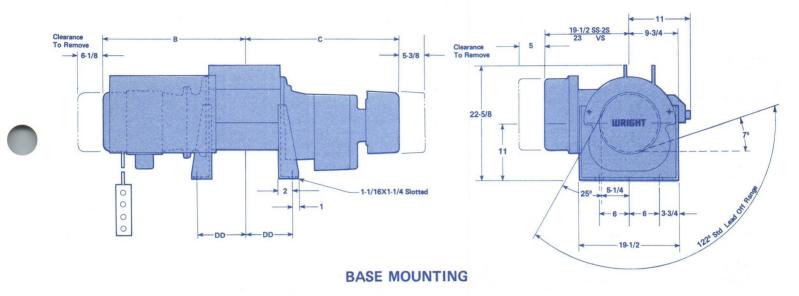
rum (a) /inding		Wire Rope Speed Winch Control	60 Single Speed	60-20 Two Speed	60 Variable Speed	90 Single Speed	90-30 Two Speed	90 Variable Speed		
apacity	Mtg.	HP	4	4-1-1/3	4	6-1/4	6-1/4-2	6-1/4	DD	EE
39 <b>H3</b>	Base Wall	B C				The second secon	3346730 3347630 27-3/4 28-1/8		6-3/8	7-3/8
39 <b>H4</b>	Base Wall	B C		3346370 3347270 25-1/2 28-1/8					6-3/8	7-3/8
64 <b>H3</b>	Base Wall	B C					3346740 3347640 30 30-3/8		8-5/8	9-5/8
64 <b>H4</b>	Base Wall	B C	The second secon	3346380 3347280 27-3/4 30-3/8					8-5/8	9-5/8
105 65 <b>H3</b>	Base Wall	B C					3346750 3347650 33-3/4 34-1/8		12-3/8	13-3/8
105 65 <b>H4</b>	Base Wall	B C		3346390 3347290 31-1/2 34-1/8					12-3/8	13-3/8
142 94 <b>H3</b>	Base Wall	B C					3346760 3347660 37-1/4 37-5/8	3346820 3347720 36 37-5/8	15-7/8	16-7/8
142 94 <b>H4</b>	Base Wall	B C		3346400 3347300 35 37-5/8					15-7/8	16-7/8
177 118 <b>H3</b>	Base Wall	B C						3346830 3347730 39 40-5/8	18-7/8	19-7/8
177 118 <b>H4</b>	Base Wall	B C		3346410 3347310 38 40-5/8					18-7/8	19-7/8
226 155 <b>H3</b>	Base Wall	B C						3346840 3347740 43-1/2 45-1/8	23-3/8	24-3/8
226 155 <b>H4</b>	Base Wall	B C		3346420 3347320 42-1/2 45-1/8				es .	23-3/8	24-3/8

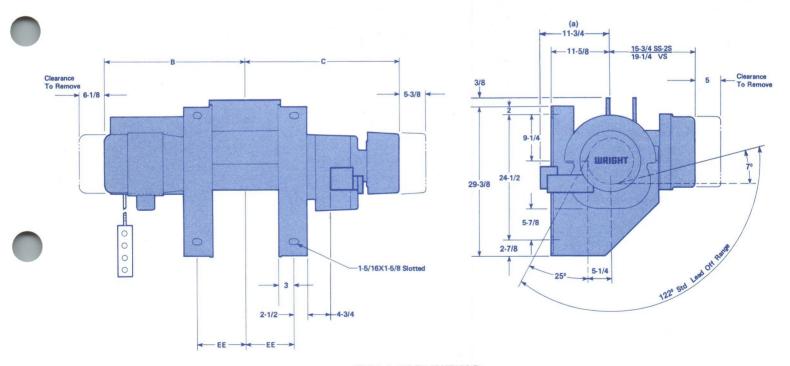
All dimensions in inches.

Controls are shipped loose, mounting and final wiring by others at destination.

<sup>(</sup>a) Maximum drum winding capacity is given with two remaining wraps of rope on drum. Drum winding capacities shown in smaller type are for double line winch.

33-111 Issued 7-1-87





**WALL MOUNTING** 

#### PRODUCT NUMBERS AND CLEARANCES

		Wire Rope Speed	44	44-15	44	60	60-20	60		
Drum (a) Winding		Winch Control	Single Speed	Two Speed	Variable Speed	Single Speed	Two Speed	Variable Speed		
Capacity	Mtg.	HP	5	5-1-2/3	5	6-1/4	6-1/4-2	6-1/4	DD	EE
36	Base Wall		3346850 3347750		3346970 3347870	3347030 3347930		3348050	6-3/8	7-3/8
<b>H3</b>		B C	24-3/8 28-1/8	25-1/2 28-1/8	24-3/8 28-1/8	24-3/8 28-1/8	27-3/4 28-1/8	26-1/2 28-1/8		
<sup>59</sup>	Base Wall	ВС	3346860 3347760 26-5/8 30-3/8	3346920 3347820 27-3/4 30-3/8	3346980 3347880 26-5/8 30-3/8	3347040 3347940 26-5/8 30-3/8	3347100 3348000 30 30-3/8	3347160 3348060 28-3/4 30-3/8	8-5/8	9-5/8
100 48 <b>H3</b>	Base Wall	ВС	3346870 3347770 30-3/8 34-1/8	3346930 3347830 31-1/2 34-1/8	3346990 3347890 30-3/8 34-1/8	3347050 3347950 30-3/8 34-1/8	3347110 3348010 33-3/4 34-1/8	3347170 3348070 32-1/2 34-1/8	12-3/8	13-3/8
134 72 <b>H3</b>	Base Wall	ВС	3346880 3347780 33-7/8 37-5/8	3346940 3347840 35 37-5/8	3347000 3347900 33-7/8 37-5/8	3347060 3347960 33-7/8 37-5/8	3347120 3348020 37-1/4 37-5/8	3347180 3348080 36 37-5/8	15-7/8	16-7/8
165 93 <b>H3</b>	Base Wall	B C	3346890 3347790 36-7/8 40-5/8	3346950 3347850 38 40-5/8	3347010 3347910 36-7/8 40-5/8	3347070 3347970 36-7/8 40-5/8	3347130 3348030 40-1/4 40-5/8	3347190 3348090 39 40-5/8	18-7/8	19-7/8
211 124 <b>H3</b>	Base Wall	B C	3346900 3347800 41-3/8 45-1/8	3346960 3347860 42-1/2 45-1/8	3347020 3347920 41-3/8 45-1/8	3347080 3347980 41-3/8 45-1/8	3347140 3348040 44-3/4 45-1/8	3347200 3348100 43-1/2 45-1/8	23-3/8	24-3/8

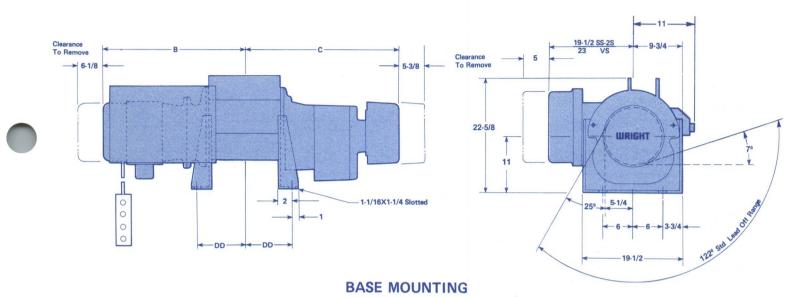
All dimensions in inches.

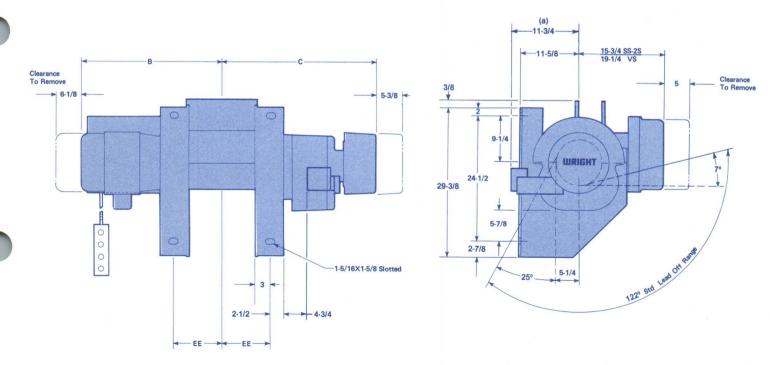
Controls are shipped loose, mounting and final wiring by others at destination.

(a) Maximum drum winding capacity is given with two remaining wraps of rope on drum. Drum winding capacities shown in smaller type are for double line winch.

33-113 Issued 7-1-87

SINGLE LINE - WIRE ROPE SIZE-7/16" DOUBLE LINE - WIRE ROPE SIZE-5/16"





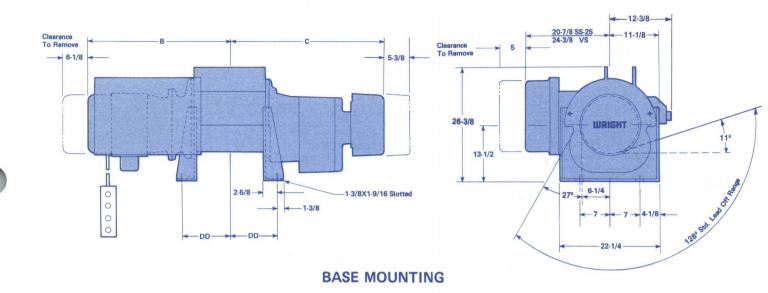
**WALL MOUNTING** 

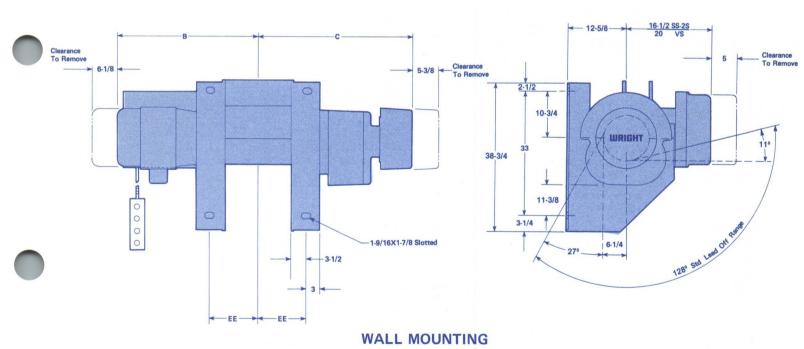
		Wire Rope Speed	80	80-27	80	100	100-33	100		
rum (a) inding		Winch Control	Single Speed	Two Speed	Variable Speed	Single Speed	Two Speed	Variable Speed		
pacity	Mtg.	HP	10	10-3-1/3	10	15	15-5	15	DD	EE
43 <b>H3</b>	Base Wall	B C					3457680 3458940 30-5/8 28-7/8		6-7/8	7-7/8
43 <b>H4</b>	Base Wall	B C	the second second second second	3457470 3458730 30-5/8 28-7/8					6-7/8	7-7/8
71 <b>H3</b>	Base Wall	B C	=				3457690 3458950 32-7/8 31-1/8		9-1/8	10-1/8
71 <b>H4</b>	Base Wall	ВС		3457480 3458740 32-7/8 31-1/8					9-1/8	10-1/8
111 41 <b>H3</b>	Base Wall	B C					3457700 3458960 36-1/8 34-3/8		12-3/8	13-3/8
111 41 <b>H4</b>	Base Wall	B C	The second secon	3457490 3458750 36-1/8 34-3/8					12-3/8	13-3/8
160 68 <b>H3</b>	Base Wall	B C				A STATE OF THE PARTY OF THE PAR	3457710 3458970 40-1/8 38-3/8	The second second second	16-3/8	17-3/8
160 68 <b>H4</b>	Base	B C		3457500 3458760 40-1/8 38-3/8					16-3/8	17-3/8
221 100 <b>H3</b>	Base Wall	B C					3457720 3458980 45-1/8 43-3/8		21-3/8	22-3/8
221 100 <b>H4</b>	Base Wall	B C		3457510 3458770 45-1/8 43-3/8					21-3/8	22-3/8
282 133 <b>H3</b>	Base Wall	B C					3457730 3458990 50-1/8 48-3/8		26-3/8	27-3/8
282 133 <b>H4</b>	Base Wall	B C		3457520 3458780 50-1/8 48-3/8					26-3/8	27-3/8

All dimensions in inches.

Controls are shipped loose, mounting and final wiring by others at destination.

<sup>(</sup>a) Maximum drum winding capacity is given with two remaining wraps of rope on drum. Drum winding capacities shown in smaller type for double line winch.





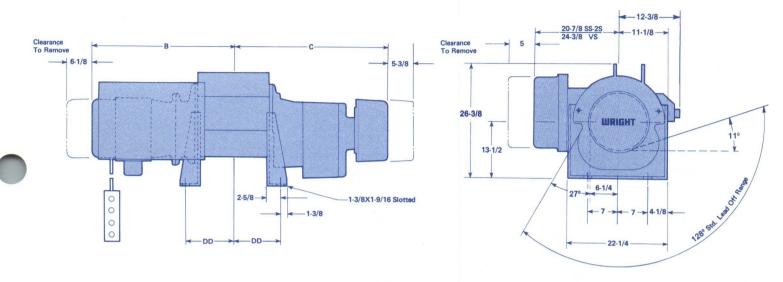


		Wire Rope Speed	60	60-20	60	S AND CL	80-27	80		
Drum (a) Winding		Winch	Single Speed	Two Speed	Variable Speed	Single Speed	Two Speed	Variable Speed		
Capacity	Mtg.	HP	7-1/2	7-1/2-2-1		10	10-3-1/3		DD	EE
<sup>36</sup>	Base Wall	ВС				3458030 3459290 25-1/2 28-7/8	3458100 3459360 30-5/8 28-7/8		6-7/8	7-7/8
36 <b>H4</b>	Base Wall	B C		3457890 3459150 28-3/4 28-7/8					6-7/8	7-7/8
60 <b>H3</b>	Base Wall	B C					3458110 3459370 32-7/8 31-1/8		9-1/8	10-1/8
60 <b>H4</b>	Base Wall	B C		3457900 3459160 30-7/8 31-1/8					9-1/8	10-1/8
95 41 <b>H3</b>	Base Wall	B C					3458120 3459380 36-1/8 34-3/8		12-3/8	13-3/8
95 41 <b>H4</b>	Base Wall	B C	Committee of the second	3457910 3459170 34-1/8 34-3/8					12-3/8	13-3/8
137 68 <b>H3</b>	Base Wall	ВС					3458130 3459390 40-1/8 38-3/8		16-3/8	17-3/8
137 68 <b>H4</b>	Base Wall	B C		3457920 3459180 38-1/8 38-3/8					16-3/8	17-3/8
190 100 <b>H3</b>	Base Wall	B C					3458140 3459400 45-1/8 43-3/8		21-3/8	22-3/8
190 100 <b>H4</b>	Base Wall	B C		3457930 3459190 43-1/8 43-3/8	The second second second second			22	21-3/8	22-3/8
244 133 <b>H3</b>	Base Wall	B C					3458150 3459410 50-1/8 48-3/8		26-3/8	27-3/8
244 133 <b>H4</b>	Base Wall	B C		3457940 3459200 48-1/8 48-3/8					26-3/8	27-3/8

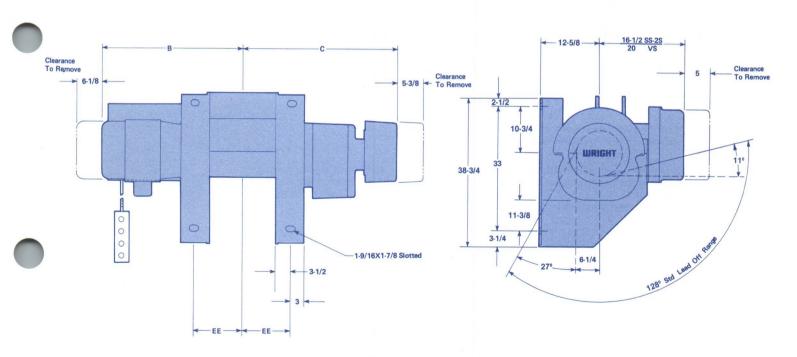
Add dimensions in inches.

Controls are shipped loose, mounting and final wiring by others at destination.

(a) Maximum drum winding capacity is given with two remaining wraps of rope on drum. Drum winding capacities shown in smaller type are for double line winch.



#### **BASE MOUNTING**



**WALL MOUNTING** 



**H4** 

**H3** 

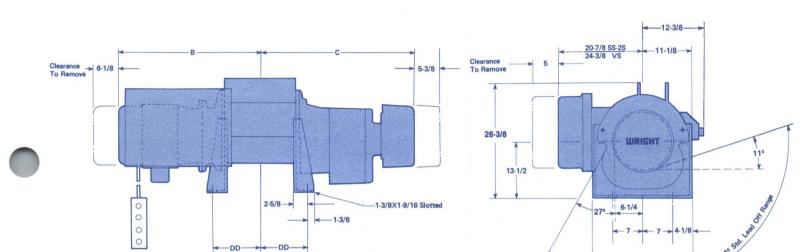
				PR	ODUCT	NUMBER	S AND CL	EARANG	CES		
			Wire Rope Speed	44	44-15	44	60	60-20	60		
_	um (a) nding		Winch Control	Single Speed	Two Speed	Variable Speed	Single Speed	Two Speed	Variable Speed		
Ca	pacity	Mtg.	HP	7-1/2	7-1/2-2-1/	2 7-1/2	10	10-3-1/3	10	DD	EE
	36	Base Wall	B C	3458240 3459500 24-5/8 28-7/8	3458310 3459570 28-3/4 28-7/8	3458380 3459640 24-3/4 28-7/8	3458450 3459710 25-1/2 28-7/8	3458520 3459780 30-5/8 28-7/8	3458590 3459850 30-5/8 28-7/8	6-7/8	7-7/8
	60	Base Wall	B C	3458250 3459510 26-7/8 31-1/8	3458320 3459580 30-7/8 31-1/8	3458390 3459650 27 31-1/8	3458460 3459720 27-3/4 31-1/8	3458530 3459790 32-7/8 31-1/8	3458600 3459860 32-7/8 31-1/8	9-1/8	10-1/8
	95 41	Base Wall	B C	3458260 3459520 30-1/8 34-3/8	3458330 3459590 34-1/8 34-3/8		3458470 3459730 31 34-3/8	3458540 3459800 36-1/8 34-3/8	3458610 3459870 36-1/8 34-3/8	12-3/8	13-3/8
	137 68	Base Wall	B C	3458270 3459530 34-1/8 38-3/8	3458340 3459600 38-1/8 38-3/8		3458480 3459740 35 38-3/8	3458550 3459810 40-1/8 38-3/8		16-3/8	17-3/8
	190	Base Wall	B C	3458280 3459540 39-1/8 43-3/8	3458350 3459610 43-1/8 43-3/8	3458420 3459680 39-1/4 43-3/8	3458490 3459750 40 43-3/8	3458560 3459820 45-1/8 43-3/8	3458630 3459890 45-1/8 43-3/8	21-3/8	22-3/8
	133	Base Wall	B C	3458290 3459550 44-1/8 48-3/8	3458360 3459620 48-1/8 48-3/8	3458430 3459690 44-1/4 48-3/8	3458500 3459760 45 48-3/8	3458570 3459830 50-1/8 48-3/8	3458640 3459900 50-1/8 48-3/8	26-3/8	27-3/8

All dimensions in inches.

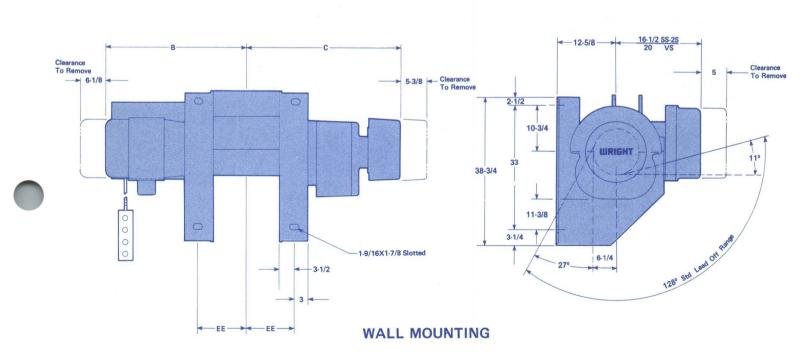
Controls are shipped loose, mounting and final wiring by others at destination.

(a) Maximum drum winding capacity is given with two remaining wraps of rope on drum. Drum winding capacities shown in smaller type are for double line winch.

33-119 Issued 7-1-87 DOUBLE LINE - WIRE ROPE SIZE-3/8"



#### **BASE MOUNTING**



See facing page for additional dimensions. All dimensions shown in inches. See page 33-102 for additional important information.

# WINCHES SINGLE LINE – WIRE ROPE SIZE-1/2" DOUBLE LINE – WIRE ROPE SIZE-7/16"

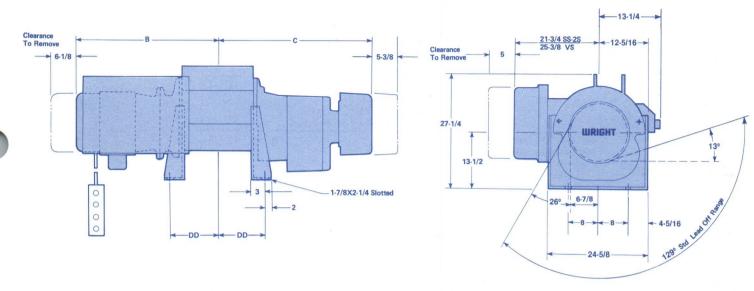
			Wire Rope Speed	PR 80	80-27	NUMBER 80	S AND CL	EARAN	ICES
	rum (a) inding	)	Winch Control	Single Speed	Two Speed	Variable Speed	Variable Speed		
C	apacity	Mtg.	HP	15	15-5	15	20	DD	EE
	63 <b>H3</b>	Base Wall	B C	3511310 3512210 28-1/8 34-3/4	3511360 3512260 33-1/2 34-3/4	3511410 3512310 33-1/2 34-3/4	3511560 3512460 33-1/2 34-3/4	9-1/4	11-1/4
	93 34 <b>H3</b>	Base Wall	B C	3511320 3512220 30-3/8 37	3511370 3512270 36 37	3511420 3512320 36 37	3511570 3512470 36 37	11-1/2	13-1/2
	148 62 <b>H3</b>	Base Wall	B C	3511330 3512230 35-3/8 42	3511380 3512280 41 42	3511430 3512330 41 42	3511580 3512480 41 42	16-1/2	18-1/2
	206 95 <b>H3</b>	Base Wall	B C	3511340 3512240 40-3/8 47	3511390 3512290 46 47	3511440 3512340 46 47	3511590 3512490 46 47	21-1/2	23-1/2
	276 136 <b>H3</b>	Base Wall	B C	3511350 3512250 46-3/8 53	3511400 3512300 52 53	3511450 3512350 52 53	3511600 3512500 52 53	27-1/2	29-1/2

All dimensions in inches.

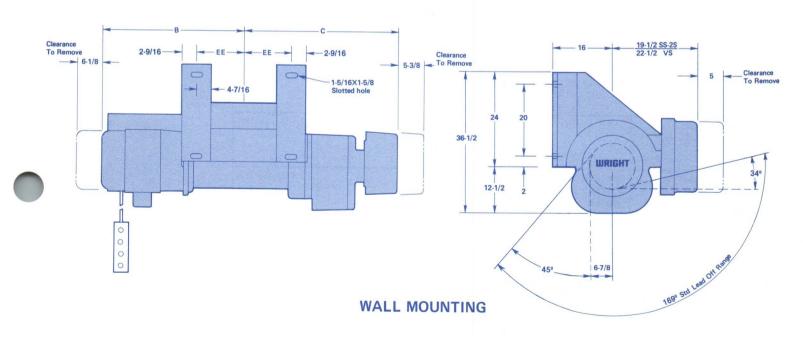
Controls are shipped loose, mounting and final wiring by others at destination.

(a) Maximum drum winding capacity is given with two remaining wraps of rope on drum. Drum winding capacities shown in smaller type are for double line winch.





#### **BASE MOUNTING**



# 3 TON

#### **WINCHES**

## SINGLE LINE — WIRE ROPE SIZE-5/8"

DOUBLE LINE - WIRE ROPE SIZE-7/16"

PRODUCT	NUMBERS	AND CL	EARANCES	

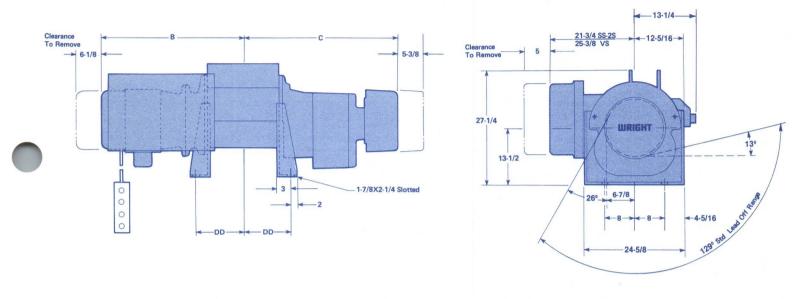
Wine	m (a) ding acity	Mtg.	Wire Rope Speed Winch Control	44 Single Speed	44-15 Two Speed 10-3-1/3	44 Variable Speed 10	80 Single Speed	80-27 Two Speed 15-5	80 Variable Speed	DD	EE
	52 <b>13</b>	Base Wall	B C						3511860 3512760 33-1/2 34-3/4	9-1/4	11-1/4
	52 <b>-14</b>	Base Wall	B C		3511660 3512560 33-1/2 34-3/4					9-1/4	11-1/4
	74 36 <b>13</b>	Base Wall	B C						3511870 3512770 36 37	11-1/2	13-1/2
	74 36	Base Wall	B C		3511670 3512570 36 37	3511720 3512620 36 37				11-1/2	13-1/2
1	124 62 <b>13</b>	Base Wall	B C						3511880 3512780 41 42	16-1/2	18-1/2
	124 62 	Base Wall	ВС			3511730 3512630 41 42				16-1/2	18-1/2
	173 95 <b>H3</b>	Base Wall	B C						3511890 3512790 46 47	21-1/2	23-1/2
	173 95 <b>H4</b>	Base Wall	B C			3511740 3512640 46 47				21-1/2	23-1/2
	232 136 <b>H3</b>	Base Wall	B C						3511900 3512800 52 53	27-1/2	29-1/2
	232 136 <b>H4</b>	Base Wall	B C			3511750 3512650 52 53				27-1/2	29-1/2

All dimensions in inches.

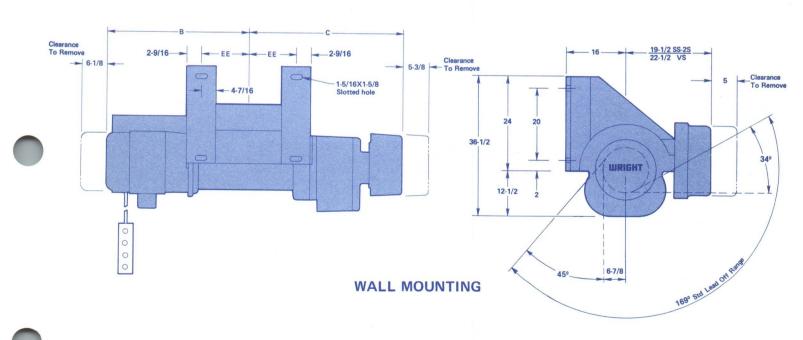
Controls are shipped loose, mounting and final wiring by others at destination.

<sup>(</sup>a) Maximum drum winding capacity is given with two remaining wraps of rope on drum. Drum winding capacities shown in smaller type for double line winch.

DOUBLE LINE - WIRE ROPE SIZE-7/16"



#### **BASE MOUNTING**



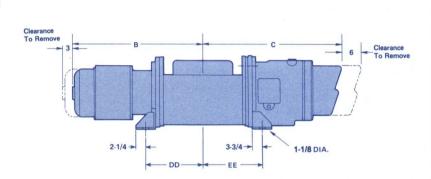
#### PRODUCT NUMBERS AND CLEARANCES

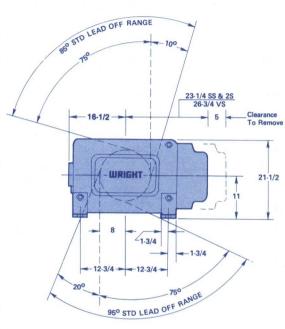
Drum (a) Winding Capacity	Mtg.	Wire Rope Speed Winch Control	80 Single Speed	80-27 Two Speed 15-5	80 Variable Speed	100 Variable Speed 20	120 Variable Speed 25	DD	EE
90 <b>H3</b>	Base	B C	3615560 33-3/8 38-1/4	3615620 34-7/8 38-1/4	3615680 34-5/8 38-1/4	3615740 34-5/8 38-1/4	3615800 36-1/8 38-1/4	15-1/4	15-3/4
130 58 <b>H3</b>	Base	B C	3615570 36-3/8 41-1/4	3615630 37-7/8 41-1/4	3615690 37-5/8 41-1/4	3615750 37-5/8 41-1/4	3615810 39-1/8 41-1/4	18-1/4	18-3/4
167 80 <b>H3</b>	Base	B C	3615580 39-3/8 44-1/4	3615640 40-7/8 44-1/4	3615700 40-5/8 44-1/4	3615760 40-5/8 44-1/4	3615820 42-1/8 44-1/4	21-1/4	21-3/4
205 102 <b>H3</b>	Base	B C	3615590 42-3/8 47-1/4	3615650 43-7/8 47-1/4	3615710 43-5/8 47-1/4	3615770 43-5/8 47-1/4	3615830 45-1/8 47-1/4	24-1/4	24-3/4
281 146 <b>H3</b>	Base	B C	3615600 48-3/8 53-1/4	3615660 49-7/8 53-1/4	3615720 49-5/8 53-1/4	3615780 49-5/8 53-1/4	3615840 51-1/8 53-1/4	30-1/4	30-3/4
356 190 <b>H3</b>	Base	B C	3615610 53-1/2 59-1/4	3615670 54-3/8 59-1/4	3615730 54-3/4 59-1/4	3615790 55-5/8 59-1/4	3615850 57-1/8 59-1/4	36-1/4	36-3/4

All dimensions in inches.

Controls are shipped loose, mounting and final wiring by others at destination.

(a) Maximum drum winding capacity is given with two remaining wraps of rope on drum. Drum winding capacities shown in smaller type are for double line winch.





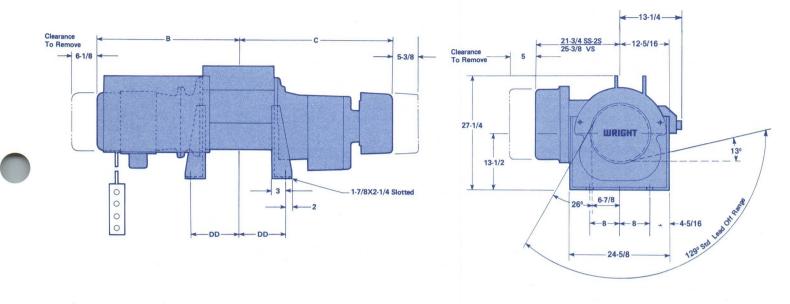
			Wire	PRODUCT NUMBERS AND CLEARANCES							
			Rope Speed	44	44-15	44	60	60-20	60		
_	um (a)		Winch Control	Single Speed	Two Speed	Variable Speed	Single Speed	Two Speed	Variable Speed		
Ca	pacity	Mtg.	HP	10	10-3-1/3	10	15	15-5	15	DD	EE
	52 <b>H3</b>	Base Wall	B C	3511910 3512810 28-1/8 34-3/4	3511960 3512860 33-1/2 34-3/4	3512010 3512910 33-1/2 34-3/4	3512060 3512960 30-1/4 34-3/4	3512110 3513010 33-1/2 34-3/4	3512160 3513060 33-1/2 34-3/4	9-1/4	11-1/4
	74 22 <b>H3</b>	Base Wall	B C	3511920 3512820 30-3/8 37	3511970 3512870 36 37	3512020 3512920 36 37	3512070 3512970 32-1/2 37	3512120 3513020 36 37	3512170 3513070 36 37	11-1/2	13-1/2
	123 52 <b>H3</b>	Base Wall	B C	3511930 3512830 35-3/8 42	3511980 3512880 41 42	3512030 3512930 41 42	3512080 3512980 37-1/2 42	3512130 3513030 41 42	3512180 3513080 41 42	16-1/2	18-1/2
	173 82 <b>H3</b>	Base Wall	B C	3511940 3512840 40-3/8 47	3511990 3512890 46 47	3512040 3512940 46 47	3512090 3512990 42-1/2 47	3512140 3513040 46 47	3512190 3513090 46 47	21-1/2	23-1/2
	232 117 <b>H3</b>	Base Wall	B C	3511950 3512850 46-3/8 53	3512000 3512900 52 53	3512050 3512950 52 53	3512100 3513000 48-1/2 53	3512150 3513050 52 53	3512200 3513100 52 53	27-1/2	29-1/2

Dimensions shown in inches.

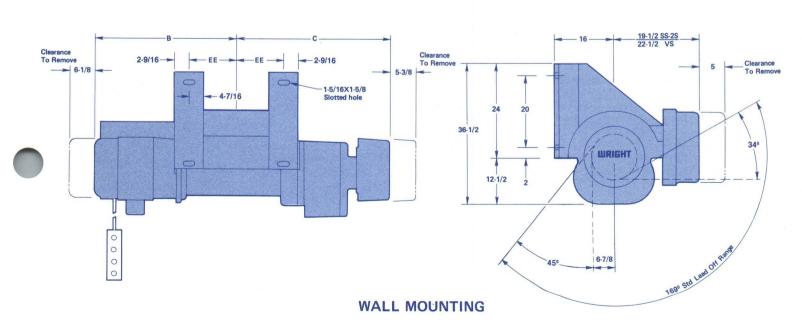
Controls are shipped loose, mounting and final wiring by others at destination.

(a) Maximum drum winding capacity is given with two remaining wraps of rope on drum. Drum winding capacities shown in smaller type are for double line winch.

SINGLE LINE - WIRE ROPE SIZE-5/8" 33-127 Issued 7-1-87 DOUBLE LINE - WIRE ROPE SIZE-1/2"



#### **BASE MOUNTING**





# H4 H3 H3

#### PRODUCT NUMBERS AND CLEARANCES

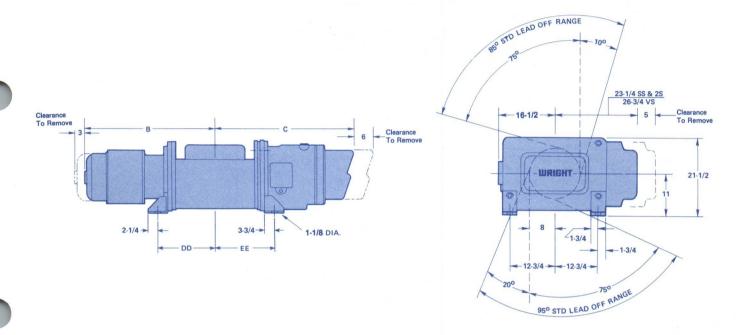
Orum (a) Vinding Capacity	Mtg.	Wire Rope Speed Winch Control	60 Single Speed	60-20 Two Speed 15-5	60 Variable Speed	80 Variable Speed 20	100 Variable Speed 25	DD	EE
82 30	Base	B C	3615860 33-3/8 38-1/4	3615920 34-7/8 38-1/4	3615980 34-5/8 38-1/4	3616040 34-5/8 38-1/4	3616100 36-1/8 38-1/4	15-1/4	15-3/4
118 50	Base	B C	3615870 36-3/8 41-1/4	3615930 37-7/8 41-1/4	3615990 37-5/8 41-1/4	3616050 37-5/8 41-1/4	3616110 39-1/8 41-1/4	18-1/4	18-3/4
153 71	Base	B C	3615880 39-3/8 44-1/4	3615940 40-7/8 44-1/4	3616000 40-5/8 44-1/4	3616060 40-5/8 44-1/4	3616120 42-1/8 44-1/4	21-1/4	21-3/4
187 91	Base	B C	3615890 42-3/8 47-1/4	3615950 43-7/8 47-1/4	3616010 43-5/8 47-1/4	3616070 43-5/8 47-1/4	3616130 45-1/8 47-1/4	24-1/4	24-3/4
<b>256</b> 132	Base	B C	3615900 48-3/8 53-1/4	3615960 49-7/8 53-1/4	3616020 49-5/8 53-1/4	3616080 49-5/8 53-1/4	3616140 51-1/8 53-1/4	30-1/4	30-3/4
325 172	Base	B C	3615910 53-1/2 59-1/4	3615970 54-3/8 59-1/4	3616030 54-3/4 59-1/4	3616090 55-5/8 59-1/4	3616150 57-1/8 59-1/4	36-1/4	36-3/4

All dimensions in inches.

Controls are shipped loose, mounting and final wiring by others at destination.

(a) Maximum drum winding capacity is given with two remaining wraps of rope on drum. Drum winding capacities shown in smaller type are for double line winch.

33-129 Issued 7-1-87





#### **WINCHES**

### SINGLE LINE — WIRE ROPE SIZE-3/4"

DOUBLE LINE - WIRE ROPE SIZE-9/16"

**H4** 

H3 H3

#### PRODUCT NUMBERS AND CLEARANCES

		Wire Rope Speed	40	40-20	40	60	80		
Drum (a) Winding		Winch Control	Single Speed	Two Speed	Variable Speed	Variable Speed	Variable Speed		
Capacity	Mtg.	HP	15*	15-7-1/2*	* 15*	20	25	DD	EE
67 26	Base	B C	3616160 33-3/8 38-1/4	3616220 34-7/8 38-1/4	3616280 34-5/8 38-1/4	3616340 34-5/8 38-1/4	3616400 36-1/8 38-1/4	15-1/4	15-3/4
95 45	Base	B C	3616170 36-3/8 41-1/4	3616230 37-7/8 41-1/4	3616290 37-5/8 41-1/4	3616350 37-5/8 41-1/4	3616410 39-1/8 41-1/4	18-1/4	18-3/4
	Base	ВС	3616180 39-3/8 44-1/4	3616240 40-7/8 44-1/4	3616300 40-5/8 44-1/4	3616360 40-5/8 44-1/4	3616420 42-1/8 44-1/4	21-1/4	21-3/4
<b>151</b> 83	Base	ВС	3616190 42-3/8 47-1/4	3616250 43-7/8 47-1/4	3616310 43-5/8 47-1/4	3616370 43-5/8 47-1/4	3616430 45-1/8 47-1/4	24-1/4	24-3/4
208	Base	ВС	3616200 48-3/8 53-1/4	3616260 49-7/8 53-1/4	3616320 49-5/8 53-1/4	3616380 49-5/8 53-1/4	3616440 51-1/8 53-1/4	30-1/4	30-3/4
<b>265</b> 159	Base	B C	3616210 54-3/8 59-1/4	3616270 55-7/8 59-1/4	3616330 55-5/8 59-1/4	3616390 55-5/8 59-1/4	3616450 57-1/8 59-1/4	36-1/4	36-3/4

All dimensions in inches.

Controls are shipped loose, mounting and final wiring by others at destination.

- (a) Maximum drum winding capacity is given with two remaining wraps of rope on drum. Drum winding capacities shown in smaller type are for double line winch.
- \* 1200 RPM MOTORS
- \*\*1200/600 RPM MOTORS

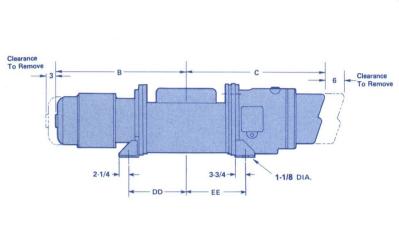
WINCHES

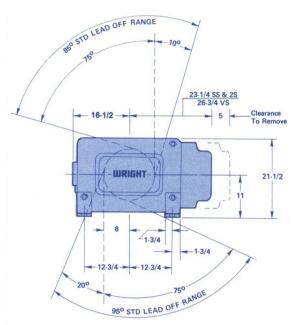
SINGLE LINE — WIRE ROPE SIZE-3/4"

DOUBLE LINE — WIRE ROPE SIZE-9/16"

5 TON

33-131 Issued 7-1-87





See facing page for additional dimensions. All dimensions shown in inches.

See page 33-102 for additional important information.

**WARNING:** Equipment described herein is not designed for, and should not be used for, lifting, supporting, or transporting humans. Modifications to upgrade, rerate, or otherwise alter the hoist equipment shall be authorized only by the original manufacturer or qualified professional engineer. Failure to comply with any one of the limitations noted herein may result in serious bodily injury.



## **Material Handling Group**

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